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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,404	01/11/2002	David Ray Hubbell JR.	DN2001236	8915

7590 12/04/2003

The Goodyear Tire & Rubber Company
Patent & Trademark Department - D/823
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Akron, OH 44316-0001

EXAMINER

MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 12/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

023

Office Action Summary	Application No.	Applicant(s)	
	10/044,404	HUBBELL ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

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- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 5, it is unclear how many belt or breaker reinforcement(s) / belt(s) or breaker(s) are being claimed (there is no antecedent basis for "said belts or breakers"). In each of claims 1 and 5, it is suggested to change "belts or breakers" (line 3) to --belt or breaker reinforcement--.

In claim 5, the claimed height P and the claimed location L are ambiguous since (1) the height P and the location L are defined by formulae and (2) the units of the terms in the formula are not specified. Without the units, the formulas are meaningless. In claim 5, the following changes are suggested (1) on line 7, "after "distance" insert --in inches--, (2) on line 8, after "differential" insert --in inches--, (3) on line 9 after "spring rate" insert --in lbs/in--, (4) on line 10 after "sidewall length" insert --in inches--, (5) on line 11 after "tread width" insert --in inches--, (6) on line 12 after "camber" insert --in degrees-- and (7) on line 13 after "load" insert --in lbs--. Support for these changes is found for example on pages 6 and 7 of the specification.

- 3) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4) Claim 5 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for radial tires, does not reasonably provide enablement for bias tires. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

The original disclosure teaches that the formula applies to radial tires only and that application of the formula to bias tires yields erroneous results. As to bias tires, the original disclosure recites "... until a bias related formula is established, other means, such as trial and error, must be used to establish the peak height and locations in bias tires" (paragraph 36 on page 5 of specification / emphasis added). In claim 5 line 2, it is suggested to insert --radial-- before "carcass".

5) The drawings are objected to because page 4 of the specification describes figure 1 as being a cross-sectional profile of a tire of the invention whereas figure 1 has a "Prior Art" legend. It is suggested to delete the "Prior Art" legend in figure 1. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8) **Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi et al (US 4763708).**

The claimed tire reads on the figure 1 tire of Takahashi et al in which the distance "e" of the highest point in the tread from the centerline is 28 mm. See figure 1 and table at col. 5 lines 1-10.

9) **Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kukimoto et al (US 4840210).**

As to claims 1 and 3-5, the claimed tire is anticipated by tires C through I in the table at col. 5. For example tire C has a LW of 0.15, which defines an offset of 30% falling within the claimed range of 15-85%. Another example: Tire D has an LW of 0.30, which defines an offset of 60% which falls within the claimed range of 15-85%. The claimed height in claims 3 and 4 and the claimed height and location in claim 5 is inherent in the above noted tires C through I.

10) **Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Secondari (US 5735979).**

Secondari discloses a pneumatic radial tire having a tire size of P245/50R16, molded dimensions of maximum section width SW of 274 mm, maximum tire diameter of 650 mm, a tread defined by R1 = 360 mm, R2 = 1420 mm, R3 = 350 mm and R4 =

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292.2 mm wherein the point of maximum tire diameter (highest peak of tread) is located 33.5 mm from the center plane, the shoulder drop off b is 11.3 mm and the shoulder drop off a is 19.8 mm.

As to claims 1 and 3-5, the claimed tire is anticipated by the above noted tire of Secondari. The claimed height / location is inherent in the above noted tire of Secondari.

11) Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Secondari (US 5735979).

Secondari, which is discussed above, is considered to anticipate claims 1, 3-5. In any event: As to claim 1, it would have been obvious to one of ordinary skill in the art to use a distance C of 15-85% of the distance from the centerline to the shoulder of the tread in the tire of Secondari since Secondari teaches defining an **asymmetric tread profile** having different shoulder drops "a" and "b" such that the maximum tire diameter (highest peak of tread) is located at a distance C from the center line so that the tire has a more uniform temperature distribution, more evenly distributed load (more uniform footprint pressure distribution) and the tread contact area is used more efficiently (col. 4 lines 39-41).

As to the remaining claims: The limitations of the highest point being located being 3 inches from the centerline (claim 2), the highest point being 0.127-5 cm higher (claim 3) or 0.127-1.27 cm higher (claim 4) or the height and location having values satisfying the formulae P and L (claim 5) would have been obvious and could have been determined without undue experimentation in view of the above noted teaching in

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Secondari to define an asymmetric tread profile having different shoulder drops "a" and "b" such that the maximum tire diameter (highest peak of tread) is located at a distance C from the center line so that the tire has a more uniform temperature distribution, more evenly distributed load (more uniform footprint pressure distribution) and the tread contact area is used more efficiently (col. 4 lines 39-41).

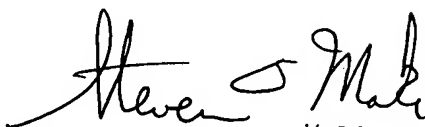
Remarks

- 12) The remaining references are of interest.
- 13) No claim is allowed.
- 14) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068 until Dec. 18, 2003 and (571) 272-1221 after Dec. 18, 2003. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki
November 26, 2003


STEVEN D. MAKI
PRIMARY EXAMINER
GROUP 1300
AV 1733
11-26-03